AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

9. (Currently amended) A method ~~of forming~~ to form an ~~inorganic macroporous material~~ inverted titania photonic crystal on a substrate exhibiting photonic stopgap by using centrifugal forces, to infiltrate polystyrene colloidal crystal template on a substrate with diluted titanium precursor with anhydrous ethanol. ~~substantial periodicity , the method comprising the steps of:~~

~~providing a colloidal crystal template on a substrate comprising organic polymer particles;~~

~~introducing into the interstitial voids of the colloidal crystal template a noncolloidal inorganic precursor composition;~~

~~forming a hardened composite organic-inorganic structure; and~~

~~removing the colloidal crystal template from the hardened composite organic-inorganic structure to form an inorganic macroporous material on a substrate.~~

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Currently amended) The method of claim [[10]] 9 wherein the polystyrene colloidal crystal template on a substrate ~~organic polymer particles~~ comprises polystyrene colloidal particles having sodium dodecyl sulfate surfactant on the surface.

14. (Cancelled)

15. (Currently amended) The method of claim 13 wherein the sodium dodecyl sulfate surfactant on the surface of the polystyrene colloidal particles, fuses the polystyrene colloidal crystal ~~organic polymer~~ particles together by producing necking between the particles.

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Currently amended) The method of claim 9 wherein the step of introducing the ~~noncolloidal inorganic precursor~~ diluted titanium precursor with anhydrous ethanol, into the ~~interstitial~~ voids of the polystyrene colloidal crystal template on a substrate, comprises subjecting ~~noncolloidal inorganic precursor and~~ the polystyrene colloidal crystal template on a substrate inside a centrifuge tube containing diluted titanium precursor with anhydrous ethanol to a gravitational centrifugal force.

25. (Currently amended) The method of claim 24 wherein the gravitational centrifugal force is applied by centrifugation.

26. (Currently amended) The method of claim 9 wherein the ~~inorganic macroporous material~~ inverted titania photonic crystal on a substrate exhibits a photonic stopgap.

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)